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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,452	06/26/2003	Naoyuki Enjoji	TOW-030	9395
959	7590	02/02/2006	EXAMINER	
LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109			MARTIN, ANGELA J	
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/608,452

Applicant(s)

ENJOJI ET AL.

Examiner

Angela J. Martin

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Office Action is responsive to the Amendment filed on November 28, 2005. The Applicant has amended claims 1-12. However, Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, this action is made final.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by St.

Pierre et al., U.S. Pat. Application Pub. 2003/0186093 A1.

Rejection of claims 1-5 and 11,12 drawn to a fuel cell; claims 6-10 drawn to a method of controlling a fuel cell.

St. Pierre et al., teach a fuel cell comprising a plurality of cell assemblies (0046; Fig. 2) having a plurality of unit cells (sect. 0007), each of the plurality of unit cells has a membrane electrode assembly (sect. 0046) including a solid polymer electrolyte membrane interposed an anode and cathode (sect. 0014), the assemblies having reactant gas passages and coolant passages connected in series with each other (sect. 0007); a fuel gas outlet/inlet passage extending between unit cells and connecting with

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fuel gas passages (Fig. 6), the fuel gas outlet/inlet passage provided outside of the cell assemblies (Fig. 6); and a fuel gas adjusting mechanism connected to the fuel outlet/inlet passage for controlling the flow rate and direction of the fuel gas (sect. 0018, 0031, 0083). It teaches an oxygen-containing gas adjusting mechanism for controlling the flow rate and direction of the oxygen-containing gas (sect. 0018, 0021, 0031, 0083; Fig. 6), the oxygen-containing gas outlet/inlet passage provided outside of the cell assemblies (Fig. 6). It teaches a coolant adjusting mechanism for controlling the flow rate and direction of the coolant (sect. 0019, 0032, 0099), the coolant outlet/inlet passage provided outside of the cell assemblies (Fig. 6). It teaches at least two of the unit cells are juxtaposed (sect. 0007, 0048). It teaches an oxygen-containing gas adjusting mechanism for controlling temperature, relative humidity, and flow rate of the gas (sect. 0018-0021). It teaches a coolant adjusting mechanism for controlling the temperature and flow rate of a coolant (sect. 0019, 0032, 0099). It teaches a method of controlling a fuel cell comprising the step of controlling a fuel gas flowing through fuel gas passages, and adjusting the temperatures and relative humidities of the cell assemblies with a fuel gas adjusting mechanism (sect. 0018). It teaches the step of controlling an oxygen-containing gas flowing through oxygen-containing gas passages, and adjusting the temperatures and relative humidities of the cell assemblies with an oxygen-containing gas adjusting mechanism (sect. 0018). It teaches the step of adjusting the temperatures and relative humidities of the cell assemblies with a coolant adjusting mechanism (sect. 0019, 0022, 0032, 0033). It teaches controlling reactant gases and coolant to operate unit cells into which the coolant is initially introduced at a

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startup time of the cell assemblies (sect. 0011). The phrase, "a plurality of cell assemblies formed individually" in claims 1, 11, and 12 is a product-by-process. When the reference teaches a product that appears to be the same as, or an obvious variant of, the product set forth in a product-by-process claim although produced by a different process. See *In re Marosi*, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and *In re Thorpe*, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985).

Thus, the claims are anticipated.

Response to Arguments

3. Applicant's arguments filed November 28, 2005 have been fully considered but they are not persuasive. The Applicant argues that the prior art of record does not teach "a plurality of cell assemblies." However, St. Pierre et al., teach a plurality of cell assemblies in sects. 0007, 0046, 0048. Applicant argues that the prior art of record does not teach outlet/inlet passages outside of the cell assemblies. However, St. Pierre et al., disclose passages outside the assemblies in sect. 0007, 0099 and Fig. 6.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawamura et al., U.S. Pat. Application Pub. 2004/0142221 A1, teach a fuel cell system comprising a flowmeter, temperature sensors and a control unit in which flow control functions of hydrogen, oxygen, and cooling water have been preset. Katagiri et al., JP 2002-117880, teach a fuel cell device comprising a humidifier

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for reaction gas. Rappaport et al., U.S. Pat. 6,794,068 B2, teach a series flow of coolant and the advantages of a series flow with respect to temperature and humidification.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

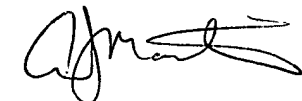
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela J. Martin whose telephone number is 571-272-1288. The examiner can normally be reached on Monday-Friday from 9:00 am to 5:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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